

**REMARKS**

This Amendment, filed in reply to the Office Action dated April 10, 2007, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-12 and 14-21 are all the claims pending in the application.

**I. Double Patenting**

Claims 1-6 and 14-18 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,597,456 in view of Natsuume et al.

**II. Claim Rejections under 35 U.S.C. § 102**

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Naya et al. (U.S. Patent No. 6,611,367).

**III. Claim Rejections under 35 U.S.C. § 103**

Claims 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Naya et al. (U.S. Patent No. 6,611,367).

Claims 1-12 and 15-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Malmqvist et al. (U.S. Patent No. 5,492,840) in view of Natsumme et al.

Claims 19-21 remain allowable over the art of record but are objected to for depending on rejected base claims.

**IV. Arguments**

The Examiner maintains the same bases for rejection and responds to the previously cited comments and References of the RCE dated March 19, 2007 by noting that Applicant has not submitted any experimental evidence to show that the materials of Naya and Natsuume would

not have the polarization characteristics as described by claim 1. The Examiner further contends that the rejection is maintained because Applicant has not shown experimental evidence for the lack of affinity of the materials disclosed by the cited art.

Applicant respectfully submits that the Examiner has not carried the burden of maintaining the rejections. The primary deficiency relates to the fact that the materials disclosed by Naya and Natsuume do not appear to expressly or inherently include the limitation on s-polarization as claimed. Therefore, Applicant traverses the rejections with for at least the following reasons.

Claim 1 describes, in part,

said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of an s-polarized component at said interface is 50% or less of the intensity of said light beam at said interface.

As an initial matter, the Examiner had previously contended that the recitation above comprise either 1) functional limitations or 2) intended use. See July 19, 2006 Office Action, page 4. To the extent that the Examiner maintains this basis of rejection (Office Action of April 10, 2007, paragraph 5), Applicant submits the following comments.

On matter 1), Claim 1 recites a dielectric block but also requires the dielectric block to include certain structural characteristics. These structural characteristics are such that the s-polarization of light be limited in the dielectric block. Though this feature of the dielectric is described in functional terms, it is the structure of the block that results in the polarization characteristics as claimed. Therefore, the recitation should be given full consideration as a structural recitation. Claim 1 need not specifically recite the structure by which the s-

polarization becomes limited because this would unduly limit the invention to only preferred embodiments. Applicant need not limit the claims in this way, especially in view of the clear deficiencies in the rejection. Because the Examiner has not cited any other reference that includes the above aspect, Applicant should be entitled to any dielectric structure that includes the above limits on s-polarization. As exemplary embodiments, the s-polarization may be limited by the ability of a particular material to suppress double refraction (birefringence), the shape of the block, and/or whether a weld is formed within the dielectric during formation of the of block. From these examples, it is clear that multiple structures can provide the s-polarization limitation. Thus, the cited recitation denotes a structural feature and not merely a functional aspect as the Examiner contends.

On matter 2), the Examiner contends that if p-polarized light is not used, then the recitation has no applicability. However, claim 1 is directed to a surface plasmon resonance (SPR) device. One skilled in the art would understand that p-polarization must be imparted in order for SPR to occur. The Examiner's own cited art supports this position. See Malmqvist, col. 1, lines 66-67. Therefore, the use of p-polarized light is not a field of use recitation or an optional recitation that allows use of non-p-polarized light since the entire device would not be an SPR device in the absence of the p-polarization. Claim 22 is added to describe this more particularly.

Applicant submits that the Examiner continues to rely improperly on inherency to maintain the rejection. The limitation on the s-polarization is an express feature of claim 1. In order to maintain the rejection, the prior art must expressly or inherently disclose this feature. The Examiner appears to concede that none of the cited art expressly teaches the feature on the limited s-polarization. However, the Examiner relies on inherent teachings of this feature in the

prior art, pointing to disclosed materials. This is insufficient. The Examiner cannot rely on possibilities or probabilities to support a rejection. Rather, the Examiner must demonstrate that the claimed feature is necessarily present. The Examiner has not done this. Any deficiencies in the references' teachings become the Examiner's burden to correct, not the Applicant's burden to demonstrate otherwise. In re Robertson, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) Thus, the Examiner has improperly and prematurely shifted the burden to Applicant to demonstrate that the feature is lacking in the art.

Contrary to the Examiner's contention, Applicant has cited sufficient evidence to rebut any purportedly inherent characteristics. Applicant's submission under 37 C.F.R. § 1.114 clearly demonstrates that Natsuume clearly cannot meet the limitations as claimed. For example, Reference 3 (of the Rule 1.114 Submission) shows a cycloolefin polymer having a substantial amount of birefringence, indicated by the white portions. One skilled in the art would understand that birefringence corresponds to an area of dual refraction, which would cause a change in polarization. The amount of birefringence shown in Reference 3 is substantial. Thus, Applicant has provided the technical data as to why Natsumme does not include the limitations on s-polarizations as claimed by claim 1, and further limited in claims 2 and 3. With further regard to claims 2-3, the Examiner cannot demonstrate that the s-polarization is limited to such extent as described by these dependent claims. Therefore, claims 1-3 are patentable for all the above reasons.

Because Reference 3 shows cycloolefin polymers would not inherently limit s-polarization as claimed, it is thus also true that synthetic resins generally (of which cycloolefin polymers is included) also would not inherently include such polarization characteristics. Thus,

the polycarbonate of Naya also would not inherently include all features of claim 1 or its dependent claims.

For all the foregoing reasons, independent claim 1 is patentable over all the cited art and combinations thereof. The remaining claims are patentable based on their dependency.

Applicant adds claims 22-25 to describe features of the invention more particularly.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

  
Susan P. Fan  
Registration No. 41,239

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